

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		
☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other		

Work Order ID 117050

April-24-14 9:11:29 AM

117050

Page 2

Item ID: D412-711-101 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Replacement Vertical Reference Window
 Start Date: 4/30/14 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 4/30/14 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Thermoform Thermoforming Machine	THERMOFORMING MACHINE Memo Thermoform as per Dwg. D412-711-101 using DT 9640 and Folio FTA 077 Dwg. Rev. <u>B</u> Folio Rev. <u>A</u> Visually inspect for proper formation and clarity Visually and inspect magic eye Verified by: <u>OK</u>	0.00 0.00				<u>Y4</u>			DAS 07 9-89 14/09/17
160 *160* HandThermo Hand Finishing Thermoforming	HAND FINISHING THERMOFORMING Memo 1) Trim off excess flange material 2) Buff out any light scratches or 3) Etch part number and batch number	0.00 0.00				<u>Y4</u>			DAS 07 9-89 14/09/10.

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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 4/30/14 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 4/30/14 **Req'd Qty:** 4.00 ***1***

Customer:

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Stop ***NR2***

[illegible]

DQA: _____ Date: _____



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Work Order ID 117050

April-24-14 9:11:29 AM

117050

Page 4

Item ID: D412-711-101

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Vertical Reference Window

Start Date: 4/30/14 Start Qty: 4.00 *4*

Cust Item ID:

Required Date: 4/30/14 Req'd Qty: 4.00 *4*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Identify as per dwg & Stock Location: <u>100</u>	0.00							
190									
Packaging	Memo	0.00	DAS			4x			
Packaging			86						
			89						
						SEP 22 2014			
200	QC21- Final Inspection - Work Order Release	0.00							
200									
QC	Memo	0.00							
Quality Control									

MLJ 14-09-23

14-9-23

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Picklist Print

April-24-14 9:11:32 AM

Page 1

Work Order ID: 117050

117050

Parent Item: D412-711-101

D412-711-101

Parent Item Name: Replacement Vertical Reference Window

Start Date: 4/30/14

Required Date: 4/30/14

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-02-01 JLM
Manufacture in-house 10/06/28 DL

IPP Rev. B.

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.236		Purchased		No			sf	597.3200		85.33333			DAS 07 9-89

MACRLICS 236

Plexiglass G 60" x 96" x .236"

14/09/17.

Location

Loc Qty

Loc Code

therm

597.32

M127669

38.66

M127867

92

M128667

146.66

M128747

320

85.33 sg ft

DQA: _____ Date: _____



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Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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DART AEROSPACE LTD		Work Order:	117050
Description: Replacement Window		Part Number:	D412-711-101
Inspection Dwg: D412-711-101 Rev: B		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

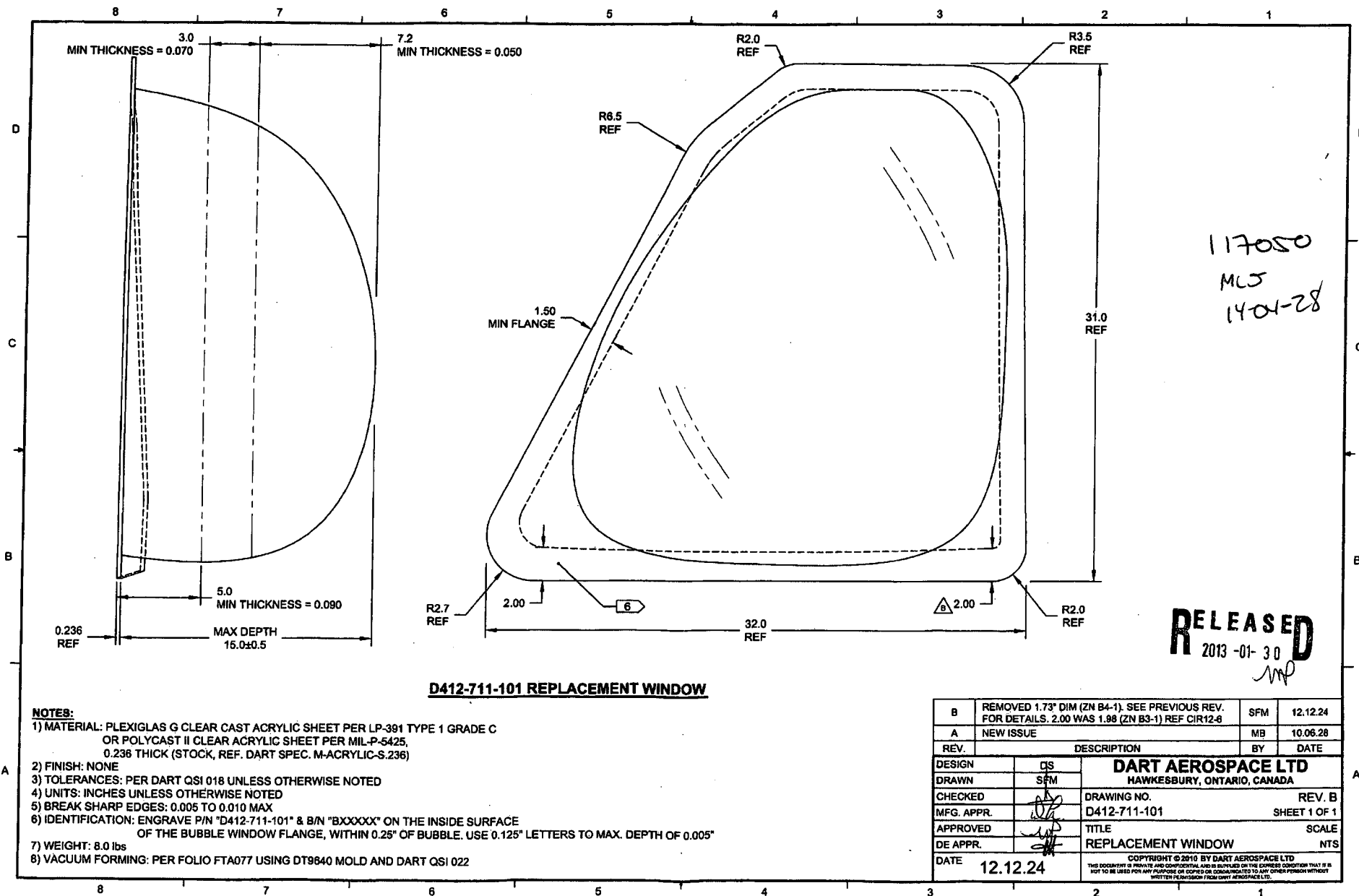
Measured by:	<u>Dh</u>	Date:	14/09/17
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.00	+/-0.030	2.02"	✓			
<u>N/A</u> 1.98	+/-0.030					
1.50	Min	1.51"	✓			
0.090	Min	0.116"	✓			
0.070	Min	0.111"	✓			
0.050	Min	0.078"	✓			
15.0	+/-0.5	15.0"	✓			

Measured by:	<u>Dh</u>	Date:	14/09/18
Audited by:	<u>SMP</u>	Date:	14/9/18
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
B	10.10.08	New Issue	KJ	
C	13.06.03	Dimensions updated per Dwg Rev B	KJ <u>[Signature]</u>	<u>[Signature]</u>



117050
MLJ
1404-28

RELEASED
2013-01-30
mp

B	REMOVED 1.73" DIM (ZN B4-1). SEE PREVIOUS REV. FOR DETAILS. 2.00 WAS 1.98 (ZN B3-1) REF CIR12-8	SFM	12.12.24
A	NEW ISSUE	MB	10.06.28
REV.	DESCRIPTION	BY	DATE
DESIGN	CS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SFM		
CHECKED	[Signature]	DRAWING NO.	REV. B
MFG. APPR.	[Signature]	D412-711-101	SHEET 1 OF 1
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	REPLACEMENT WINDOW	NTS
DATE	12.12.24	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	